Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – APRIL-2019

Time: Three Hours **Max. Marks: 80 Marks**

Basic Electroencephalography
Q.P. CODE: 2841

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Basics of electronics
2. International 10-20 system
3. Classify epilepsy. Enumerate the antiepileptic drugs.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Time constant
5. Obstructive Sleep Apnea.
6. Normal EEG rhythms
7. Amplifier
8. Stages of sleep
9. CMR
10. Meninges of the brain
11. Impedance

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Components of EEG
13. EEG as time series
14. Paper speed
15 Block diagram of EEG
16. EEG calibration
17. BBB
18. Periodic Leg Movements syndrome
19. Lumbar puncture
20. Patient preparation for PSG
21. Alpha rhythm
22. Respiratory Event Related Arousals (RERA)
23. Meningitis

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – April-2019

Time: Three Hours **Max. Marks: 80 Marks**

Basic of Nerve Conduction Study (NCS)

Q.P. CODE: 2842

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Principle, procedure and technique of Nerve Conduction Study.
2. Essay on brachial plexus and its injuries with diagram.
3. Discuss in detail about AIDP add a note on GBS.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Carpal tunnel syndrome.
5. CMAP.
6. Ulnar nerve.
7. NMJ and its disorders.
8. H-Reflex.
9. Trigeminal nerve and its clinical considerations.
10. Radial nerve.
11. CIDP.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Axillary nerve function and its muscle supply.
13. Femoral nerve.
14. Sural nerve.
15 Limitations of NCS.
16. Multiple sclerosis.
17. Upper trunk lesion.
18. Foot drop.
19. Patient preparation for NCS.
20. CV and latency.
21. Axon reflex.
22. Femoral neuropathy.
23. Axonal Neuropathy.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – APRIL-2019

Time: Three Hours **Max. Marks: 80 Marks**

Applied Anatomy and Physiology Related to Neuroscience Technology
Q.P. CODE: 2843

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe formation, circulation and function of Cerebrospinal fluid. Add a note on Hydrocephalus.
2. Describe Corticospinal tract in detail. Add a note on hemiplelgia.
3. Draw a labeled diagram of superolateral surface of Brain showing Sucli and Gyri.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Cavernous sinus.
5. Circle of Willis.
6. Sense of hearing.
7. Basal ganglia.
8. Auditory Pathway.
9. Romberg, s sign.
10. Horizontal section of spinal cord.
11. Para Symphatic division of ANS.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Neuro transmitters
13. Functions of Hypothalamus.
14. Name the Ventricles of Brain.
15 Name the parts of corpus collasum.
16. Synapse.
17. Parkinson’s features.
18. Folds of Duramatter.
19. Broca’s area.
20. Filum terminale.
21. Central suclus.
22. Choroid plexus.
23. Basilar artery.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – APRIL-2019

Time: Three Hours **Max. Marks: 80 Marks**

Pharmacology Related to Neuroscience Technology

Q.P. CODE: 2844

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Enumerate various routes of drug administration. Mention the advantages and disadvantages of oral route.
2. Classify Antitubercular drugs. Write the mechanism of action, uses and adverse affects of Rifampicin.
3. Classify Anticoagulants. Discuss the therapeutic uses and adverse effect of Warfarin Sodium.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Drug Antagonism.
5. ACE Inhibitors.
6. Therapeutic uses of β blockers.
7. Adverse effects of Glucocorticoids.
8. Spinal Anesthesia.
9. Therapeutic Uses of aspirin.
10. Disulfiram.
11. Acyclovir.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Name three newer drug delivery systems.
13. Apparent volume of distribution.
14. Mention three important uses of Adrenaline.
15. Name one a α blocker and mention its two important uses.
16. Mechanism of action of Nitroglycerine.
17. Mention any three classes of drugs used in Glaucoma-with one example for each.
18. Name three drugs used in the treatment of Lepra reaction.
19. Tetracyclines are contraindicated in young children. Justify.
20. Mention uses and two adverse effects of Insulin.
21. Rationale of using Dopamine in Cardiogenic shock.
22. Name three macrolide antibiotics.
23. Rationale of using Ethanol in Methanol poisoning.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – SEP-2019

Time: Three Hours **Max. Marks: 80 Marks**

Basic Electroencephalography
Q.P. CODE: 2841

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Basics of electronics
2. International 10-20 system
3. Essay on digital spinal processing and add a note on advantages of DSP and filters

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Adult EEG montage
5. Obstructive Sleep Apnea
6. Normal EEG rhythms
7. Dementia
8. Narcolepsy
9. DBS
10. Vertex sharp waves
11. Glasgow coma scale

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. EKG artifact
13. POSTS
14. Paper speed
15 Cataplexy
16. EEG calibration
17. Jacksonian march
18. Periodic leg movements syndrome
19. Gamma rhythm
20. Patient preparation for PSG
21. Alpha rhythm
22. Respiratory event related arousals (RERA)
23. Sleep spindles

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – OCT-2019

Time: Three Hours **Max. Marks: 80 Marks**

Basic of Nerve Conduction Study (NCS)
Q.P. CODE: 2842

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Anatomy, course and function of 7^{th} cranial nerve, add a note on its clinical conditions
2. Detail on Neuropathy associated with AIDS
3. Essay on sacral plexus and its injuries with diagram

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. F – Response
5. SNAP
6. Common peroneal nerve
7. H-Reflex
8. Polyneuropathy
9. Median nerve
10. CIDP
11. Cervical radiculopathy

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Ulnar nerve
13. Meralgia parasthesia
14. Upper trunk lesion
15 SAIDP
16. Trigeminal nerve
17. Lateral femoral cutaneous nerve of thigh
18. Sciatica
19. Demyelinating neuropathy
20. Miller fisher syndrome
21. Cubital tunnel syndrome
22. Tarsal tunnel syndrome
23. Claw hand

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – OCT-2019

Time: Three Hours **Max. Marks: 80 Marks**

Applied Anatomy and Physiology Related to Neuroscience Technology
Q.P. CODE: 2843

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Blood supply of the brain. Add a note on circle of Willis.
2. Essay on function, divisions, complications and applied anatomy of cerebellum
3. Essay on ANS and its applied anatomy

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Cranial nerves and its functions
5. Pyramidal tract
6. Circulation of CSF
7. Subarachnoid cisterns
8. Subarchanoid haemorrhage
9. Basal ganglia
10. Occipital lobe
11. Arterial supply of spinal cord

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Lumbar puncture
13. Mid brain
14. Applied anatomy of pons
15 Disorders of Adrenal cortex
16. Spina bifida
17. Rhomboid fossa – boundries
18. Lateral geniculate body
19. TIA
20. Schematic diagram of neuron
21. Hypoxia
22. Red nucleus
23. Name the receptors for hearing and olfaction

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – OCT-2019

Time: Three Hours **Max. Marks: 80 Marks**

Pharmacology Related to Neuroscience Technology
Q.P. CODE: 2844

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Classify drugs antihypertensive drugs. Write the therapeutic uses and adverse effects of thiazide diuretics.
2. Explain the mechanism of action of local anesthetics. Give three examples. Indicate the side effects and precautions to be taken while injecting them.
3. Enumerate antianginal drugs. Write the therapeutic uses and adverse effects of organic nitrates.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Digoxin.
5. Stretokinase.
6. Atropine
7. Plasma expanders.
8. Treatment of metabolic acidosis
9. Paracetamol
10. Erythromycin
11. Oral route of drug administration.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Name three drugs prescribed in bronchial asthma.
13. Enumerate three immunosuppressants.
14. Advantages of intravenous route of drug administration.
15 Name three antiarthymic drugs.
16. Drugs used in cardiogenic shock
17. Name three general anesthetic agents.
18. Name three opioid analgesics.
19. Reason why potassium chloride is given with digitalis and furosemide
20. Enumerate three drugs used in treatment of shock.
21. Name two anti anginal drugs and indicate one side effect.
22. Mention three important routes of drug excretion
23. Name three muscle relaxants.

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